DEFENSE SYSTEMS MANAGEMENT SCHOOL

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PROGRAM MANAGEMENT COURSE

INDIVIDUAL STUDY PROGRAM

FACTORS CONTRIBUTING TOWARD
DIVERGING DEFINITIONS OF
THE EFFECTIVE PROJECT MANAGER

STUDY PROJECT REPORT
PMC 76-1

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DEFENSE SYSTEMS MANAGEMENT SCHOOL

STUDY TITLE:

Factors Contributing Toward Diverging Definitions
of the Effective Project Manager.

STUDY PROJECT GOALS:

What personal characteristics and psychological features
should be weighed in determination of the effective
project manager? How much and what type training is
necessary and preferential in selection of the P.M.?
What priorities should be specifically branded as
determinent factors effecting the program manager's
performance?

STUDY REPORT ABSTRACT:

The purpose of this report was to isolate specific nontangible factors
impacting on the determination of the effective program manager. The
method of inquiry was library research. The DSMS academic environment
provided a composite exposure to the philosophies of program management
maintained by the three services. A pattern of slight disparity in
preparatory and training backgrounds was displayed. Selection for
command was not precluded by membership in the project manager field.
Nine specific areas were designated through research as sustaining
factors in the definition of the effective program manager. The
influence of the nine variables upon the productivity and effectiveness
of the program manager is presented in the context of interface with
the position.

KEY WORDS: Effective Project Manager, Education, Experience,
Guidelines, Integrity, Scare Tactics

MANAGEMENT	CONCEPTS	MANAGEMENT TRAINING	PROJECT MANAGEMENT	EDUCATION
		HUMAN FACTORS		

NAME, RANK, SERVICE	CLASS	DATE
Charles C. Viall, Jr. MAJ, USA	76-1	12 May 1976

FACTORS CONTRIBUTING TOWARD
DIVERGING DEFINITIONS OF
THE EFFECTIVE PROJECT MANAGER

Study Project Report
Individual Study Program

Defense Systems Management School
Program Management Course
Class 76-1

by
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May 1976

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EXECUTIVE SUMMARY

The purpose of this project was to research materials available
relative to just what factors determined an effective program
manager.

The specific areas selected were education, experience,
technical and management expertise, personality, needs of subordinates,
demands of the task, climate of the organization, rank and status,
and future promises.

Researching the civilian and military viewpoints among current
management specialists provided a wide background of comparative
data.

Resultant efforts yielded a variety of guidelines for determining
effectiveness. An inflated sense of superiority among present
or potential program managers caused the issuance of too many
"laundry lists" for guidelines. This author found the above to be
far too prevalent and suggested it resembled scare tactics.
An overemphasis on the visibility of the career field could
result in an unjustified elitism.

ACKNOWLEDGEMENTS

My gratitude is expressed to MAJ Donald Fujii for his guidance in my research and also to the faculty and students of DSMS who have directly influenced my conclusions regarding the "effective" program manager.

My appreciation is also expressed to my wife, Maureen, for typing and proofreading this paper.

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INTRODUCTION

The seemingly simple title Project Manager, lends itself to a wide range of semantics when dissected for definition.

As a floundering novice in the midst of my experienced cohorts at the Defense Systems Management School, I therefore pursued a study of an area that captivated my attention from the very first exposure to this unique academic environment. Just what constitutes an effective program manager?

Aspiring and potential program managers sit next to me in class, share coffee cup wisdom and even teach me from the platform. Rightly or wrongly, they have largely influenced my conclusions and formulated my opinions as I began to correlate the diverse factors available through research.

This paper is divided into specific subheadings, which I have designated through research, and exposure to the variety of backgrounds represented at DSMS, to be the areas of influence formulating the effective program manager. The areas are experience, education, technical and management expertise, personality, needs of subordinates, demands of the task, status, climate of the organization, and future promises.

BACKGROUND

A project manager has satirically been referred to as one who comes in knowing nothing about anything and immediately becomes omniscient, omnipresent, and omnipotent. (1) *

*This notation is used throughout the report to designate references cited numerically in the List of References.

Researching from the military perspective, one first notices that all three services emphasize the program manager's position with prestige by deeming it a specialized career area. The Army does not currently designate program management as a primary or alternate specialty under the Officer Personnel Management System but has held onto the career development concept. Project management is an additional developed skill that complements the development of an officer's qualifications in his primary and alternate specialties. (2) The Air Force requires that SPD's (Systems Program Directors) be graduates of the Defense Systems Management School and the Navy's Weapons Acquisition Management Specialists and the Army's Program Managers are following suit. However, the Air Force has also established special courses at Air Force Institute of Technology in Ohio in order to give early impact and preparation to the formative career patterns of future SPD's.

It must be noted that while the program manager is largely and uniquely responsible for the success or failure of a project there are many limitations imposed by agents external to the project team. The essence of team work and spirit must be ever present to achieve even minimal attainments.

> It is clearly unrealistic in any but the smallest projects
> to conceive of neatly autonomous project groups containing
> the necessary manpower, skills, and physical resources.
> Advanced technologies usually require the collaboration
> of outside organizations (which we have subsumed under the
> generic title of contractor). In addition, both within the
> sponsor's own organization and each of the contractor's
> organizations there are a multiplicity of divisions and
> subdivisions, each possessing their own unique expertise

and having some function to perform in the total project. (5)

JUST WHAT THEN IS PROJECT MANAGEMENT? Project Management is a
concept for the technical, business, and administration of specified
development/acquisition programs based on the use of designated, cen-
tralized management authority. This authority is responsible for
planning, organizing, directing, and controlling all phases of research,
development, initial procurement production, distribution, and logisti-
cal support for the purpose of providing a balanced program to accom-
plish the stated program objectives. It is also responsible for
assuring that planning is accomplished and action is implemented by
the organizations responsible for the complementary functions of
evaluation, logistic support, personnel training, operational testing,
activation and employment. (6)

Recognizing a starting point by definition, one now needs to
perceive the impact of the specific areas meriting definition for
their effect on the success or failure of the program manager.

EXPERIENCE

All, or at least many positions of priority on a project team
require basic experience. What then, about the military program
manager? Does he collect experience via the route of heading various
projects? Hopefully not, since the element of time would be in
basic opposition to the manager's frequent moves as would the elements
of cost and training. Unfortunately, a justified criticism of the
military's reassignment posture for program managers was made by

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author Steven Rosen in 1973. He charged that military men were moved from their projects every two or three years and that this was courting disaster since the P.M. was usually just about reaching the point of real expertise in his project. Rosen contended this was part of the demand for a wide amount of experience contributing to the theory of "every man is a potential Chief of Staff". (7)

There is currently a shift away from consistent re-positioning of P.M.'s. In this aspect, the Air Force appears to set the pace. A glance at the past assignments from the DSMS Air Force students of Class 76-1 would establish this point.

Ideally, the military program manager would be able to make every assignment contribute toward amassing experience essential to head a project. Deputy Secretary of Defense William P. Clements has gone on record as demanding a "need for in-depth experience on the small project level and the holding of prior positions of increasing responsibility before assuming the management of a project." (8) Writing in Defense Management Journal, DSMS faculty member J. Stanley Baumgartner reiterated Secretary Clements' position with the warning that "on the job training in this field is prohibitively expensive because when mistakes occur, they are whoppers." (8)

An Air Force management directory interviewed for "Project Ace" contributed his system for identifying future Systems Project Officers as one he labelled Prime Movers. He defined a Prime Mover as ; 1. one who gets things done 2. one who always seeks a better way to do his

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job and is not bound by past approaches 3. one who is aware of how he and his job interrelate with other functions and understands that tradeoffs in one area affect all other areas 4. one who has a broad view of his job and can tailor his personal and functional objectives to organization objectives. (3)

The problems with the above method came in actually designating these men as individuals to be watched and whose career management would insure adequate education at various stages of re-assignment. The Project Ace Study recommended that the Prime Mover concept be adopted formally so that these designated officers (after 2 or 3 cycles of continued identification) could receive special career development at reassignment time.

A noteworthy counterpoint to the experience as a prime factor in effective program management theory can be seen in a study of civilian industries and organizations presented in IEEE Transactions in Engineering Management. That study indicated that organizations select their oldest and most experienced project managers to direct large, high priority projects. Performance is then superior without relation to the project manager's total experience, but in relation to the high priority given larger projects. With the exception of a measure of growth in responsibility, none of the measures of the project manager's experience were found to bear any direct relationship to project performance. (10) The authors of this article claimed that the selection of the experienced manager is not going to lead to

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better project performance, that it is in fact the level of internal priority given the project that becomes the critical variable. Psychologically, there is an advantage to the customer when the most experienced manager is put in charge of the project. " The selection process may simply reflect an organization's marketing strategy. Quite plausibly, the organization may place its more experienced project managers on competitive projects as a selling point to the customer." (10)

Authors Rubin and Seelig have provided us with food for thought by deflating the theory of the required proven track record. Their research indicated that with respect to the experience of the program manager in R&D work, "the level of experience has no direct effect on performance." (10)

EDUCATION

To alleviate career enhancement problems, Secretary Clements issued a directive in December 1974 establishing policy for the selection, training, and career development of DOD personnel for the management of major defense systems acquisition. The military weighs formalized educational processes very heavily in their selection of project managers as evidenced by the criteria formally established by selection panels and also as evidenced by the creation of the Department of Defense school at Fort Belvoir, the Defense Systems Management School. "Each program management candidate will be required to attend DSMS before, or shortly after assignment to the career field." (11)

Arguments rage over the depth of background required for the

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project manager and the amount of education essential to satisfy the
scope of the task of manager. In treating the study of controls and
measurements and the use of analytical tools in the management science
area, Peter Drucker, famed management consultant and author, said
very realistically that no manager would be able to master all of the
management science skills but that he needed to know what they were
and what they could do for him. "Every manager needs basic literacy
with respect to essential managerial skills." (13)

Sterling Livingston, writing for the Harvard Business Review,
advocated a radical departure from the traditional paths of emphasis
on selection for key management positions. He claims that a manager's
success or effectiveness cannot be predicted based on the number of
degrees he holds, his grades or the number of formal management educa-
tion programs he attends. He further stated that academic achievement
is not a valid yardstick to use in measuring managerial potential. (12)

> Problem solving and decision making in the classroom
> require what psychologists call respondent behavior . It
> is this type of behavior that enables a person to get
> high grades on examinations, even though he may never use
> in later life what he has learned in school. On the other
> hand, success and fulfillment in work demand a different
> kind of behavior which psychologists have branded operant
> behavior. Finding problems and opportunities, initiating
> situations, and following through to attain desired results
> require the exercise of operant behavior which is neither
> measured by examinations or developed by discussing in
> the classroom what someone else should do. Operant behavior
> can be developed only by doing what needs to be done. (12)

Livingston's radical opposition to formalized educational processes
provides food for thought when one considers the amount of time the

average military person spends in courses preparing for management
roles. Instruction in problem solving and decision making all too
often leads to "analysis paralysis" because managerial aspirants
are required only to explain and defend their reasoning, not to
carry out their decisions or even to plan realistically for their
implementation. Problem solving in the classroom often is dealt with,
moreover, as an entirely rational process, which, of course, it hardly
ever is. (12)

A breakdown of statistics spanning attendance at DSMS as reported
in Commander's Digest revealed the following: All of the students
attending the PMC have baccalaureate degrees, more than 50 per cent
have masters degrees, and more than five per cent have doctorates.
"Some of the students have had experience in program management
courses, but these students are in the minority." (11) The above
mentioned statistics are to be taken issue with when one compares
the yearbook of the 76-1 class at DSMS with them. One could not
say that only a minority of individuals attending the PMC in this
session have had experience, quite the contrary.....

Hence, in correlating experience and education as variant factors
in program management development, the pattern of increased experience
and background skills is on the incline among students at DSMS.
Financially, the advantage would appear to create an environment
wherein each potential program manager is sharing not only the
training but also the experiences and past ordeals of classmates who

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have occupied the so-called selected slots.

MANAGEMENT AND TECHNICAL EXPERTISE

The idea that opposition exists in these two areas should not
be dwelled upon as much as the striving for a blending of the two
backgrounds. On military projects this is particularly stressed as
the goal since technological skills are matched with one's ability
to relate to the project and the management tools and skills are
developed simultaneously with military career development. Obviously,
one side will receive more accent depending on an individual's educa-
tional concentration and military training specialties but ideally
a potential project manager will have a substantial amount of both
technical and management expertise to contribute. Peter Drucker
draws an interesting parallel with the comparison of the competition
between the manager and the management scientist. "To demand of any
tool user that he understand what goes into the making of the tool is
admission of incompetence on the part of the tool maker. The tool user,
provided the tool is well made, need not, and indeed should not, know
anything about the tool." (13)

In the military sphere, one would need awareness of the lack of
influence of the normal peer structure. One reason that decisions
made down the line are not the obviously correct or rational ones
is that the decision maker is concerned not so much with the correct-
ness of the decision but with its acceptability to his boss, peers,
subordinates or external environment. (14) The matter of practical

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decisions becomes a prime factor in judging the value of management expertise.

Three motivational factors possessed by managers have been isolated by Professor David McClelland of Harvard. He labels the three as needs: the need for power, the need for achievement and the need for affiliation. McClelland criticizes the followers of management seer Chris Argyris when he warns against Argyris' intense reliance on democratic procedures and hence too much participation. McClelland also admonishes the manager who displays too great an affiliative need. The affiliative person spends too much time on the phone, stops to chat too frequently, and likes to take individual's needs into account too much-- all damaging from the management viewpoint. (22)

A laundry list of certain goal-oriented characteristics or traits which the P.M. "must have to guarantee success" is worth mention as it compares with other similar lists, abundant in the research materials and items.
1. Committment to project goals
2. Authority and influence (Broad hints given to locate
close to project -- Navy does not)
3. Task orientation
4. Human skill
5. Administrative skill
6. Technical skill
7. Early and continued involvement
8. Participation in goal setting and criteria specifications
(4)

LTC Sherril Owens in his "Development and Selection Process of Army Program Managers", suggested that the technical experience factor should take priority over the formalized attendance at a senior service school. (15) Army directives at this time require attendance at a

senior service school and in fact, are much more restrictive in their selection of program managers than they are with the Command Designee counterparts of Brigade and Group Commanders. In the December 1975 Command Selection List for Colonels (0-6), the program managers were the only ones that had to have both masters degrees and attendance at senior service schools. LTC Owens lists his composites of abilities which strongly follow the abilities list cited earlier but he adds working knowledge of many fields of science.

I would suggest that while he didn't mention a graduate degree it could be assumed that graduate school contributed to the area of technical expertise.

The Boston College management grant study revealed that mission-successful projects frequently demonstrated cost overruns and that project success hinged on the adequacy of technical performance, not adequacy of cost performance. (4)

> Dual manager-leader positions are extremely complex, but highly gifted people have the ability to respond to the demands of the situation or organizational needs and provide the essential skills which are unique to each function. (16)

PERSONALITY

Personality is probably among the most significant factors on the list of variables concerning diverging definitions of the effective program manager. A man might himself know too little, perform poorly, lack judgement and ability and yet not do too much damage as a manager.

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But if he lacks in character and integrity -- no matter how knowledgeable, how brilliant, how successful --- he destroys. He destroys people, the most valuable resource of the enterprise. He destroys spirit, and he destroys performance. (13) A large amount of the research material available presents a thrust toward the essential appreciation of personality as it fits into the daily sphere of the program manager.

Personality has been defined as the adjustment of the individual to his environment, the unique aspects of individual behavior, the social stimulus value of the individual and the specific organic characteristics which can be described and measured. (17)

Four managerial personality types can be borrowed from the four basic Jungian personality types; sensing-thinking types, sensing-feeling types, intuition-thinking types, and intuition-feeling types. (18) A program manager would possess elements of each of the four personality areas. However, if concentration or emulation of one type could be accomplished, the "sensing-thinking" type would be most desired for the P.M. , based on definition. Sensing-thinking types place an extreme emphasis and concentration on specifics and factual details. Their organizations are characterized by complete control, certainty, and specificity. Well defined hierarchial lines of authority extend all the way down. (18) Admittedly, the sensing-thinking type personality is not as sensitive to the personal needs as a sensing-feeling personality type but he is also far removed from the theories and generalities of the intuition types. A program manager would not

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have the luxury of an allotment to the theoretical realm while pursuing his goals.

The personal approach to problem solving is not the sole concern of the program manager but its utilization would be of permanent value in insuring his priorities as the project progressed. It is imperative that the manager's personality be inflicted so to speak, from the initial contact point with his team. Personality often depends, partially at least, on the personality mix of those involved with the job.(19)

As Sayles and Chandler's study indicated, despite efforts to treat information impersonally by using data banks and the like, communication is still basically a personal matter and very much a function of the relationship between those who have information and those who need it.(5)

Managers are rarely taught how to manage in ways consistent with their own personalities, according to Rensis Likert. He criticized formal programs where managers are taught they must follow a prescribed set of practices and adopt either a "consultative" or "participative" style in order to get highest productivity, lowest costs, and best performance. (20) Likert's postulations provide additional reason to investigate our academic emphasis on management, if in fact we do stifle the personality.

A discussion of the diverging opinions leading to the definition of an effective project manager would not be complete in this time frame if mention was not made of integrity, values and mores. This last year has seen the revelations in the media of many individuals'

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lack of judgement when dealing with defense contractors' favors.

> The final proof of the sincerity and seriousness of
> management is uncompromising emphasis on integrity
> of character. Character exercises leadership and
> character sets the example and is imitated. The men
> with whom a man works, and especially his subordinates,
> know in a few weeks whether he has integrity or not.
> They may forgive a man a great deal: incompetence,
> ignorance, insecurity, or bad manners. But they will not
> forgive him lack of integrity. (13)

NEEDS OF SUBORDINATES

The needs of subordinates must be recognized as a crucial element
when outlining factors effecting the success of the project manager.
Perhaps from the first, a basic outline of the characteristics inherent
in the various divisions and subdivisions of the project team would
eradicate lost time once production was under way. The Boston College
report concluded that the project manager should: insist upon the right
to select own key project team members; select key project team members
with proven track records in their key area of expertise; develop
commitment and a sense of mission from the outset among project team
members; call upon key project team members to assist in decision
making and problem solving. (4)

From recognition of the above factors, one can spot the credence
lent to selecting your own team members if you are a project manager and
then developing rapport from the outset. Knowing you have been requested
contributes toward esprit and unity. The following are questions
that merit asking by the project manager.

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1. How do I frustrate my subordinates?

2. Do your subordinates tend to see you as fighting a crisis of such proportions that you have little time for their perspectives or concerns? This may lead them to fudge and stretch on reports and damage will be irreparable.

3. If subordinates are not telling you all they could, is your organization suffering from too much secrecy?

The above three questions are significantly pertinent for the program manager or potential program manager since the psychological impact of subordinates needs is directly related to the financial arena of a project.

According to David McClelland, whose theories are in opposition to much that I researched and who prides himself on dissecting the management theories of Maslow, Likert, and Argyris, the solid route towards achieving high morale among subordinates exists in high power - low affiliation management situations. McClelland rates the most successful managers as those who are high in the need for power and low in the need for affiliation. (22) The situation, as viewed by McClelland, might be paralleled to that of the project manager where discipline and authority are shunned in favor of participative management. The subordinates must be able to deal with an acceptance of the participative methods or manager affiliation needs should be vastly reduced.

When discussing needs of subordinates on the project, the following individuals' needs should be considered: level of aspiration; perception of situation; cultural background; experience background; and

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off job activities. (17)

DEMANDS OF THE TASK

The program manager knows he has to deliver his end product
1. in accordance with performance requirements 2. within the limitations
of his budget 3. within the time frame that his company or customer has
specified. In general the manager will delegate by task, so that sub-
ordinate managers in his group will have these same three responsibilities
for subprojects. (24)

What sounds blatantly simple can become a twenty-four hour a day
obsession if the proper management guidelines are not followed. Con-
sequently an appreciation for the correlation of all the factors hereto-
fore discussed becomes mandatory. The experience and education should
be blended and applied to the management and technical expertise while
the P.M.'s personality level dominates his actions and knowledge of
the needs of his subordinates.

Job role ambiguity and job related tension definitely exist in
or among decision and management scientists. Program/project managers,
by virtue of the enormous complexities of their tasks fit the combined
descriptions of decision scientists and management scientists. Note
the following hypotheses suggested for exploration in this area and
one can see how a correlation might be reached via the selected factors,
demands of the task, and climate of the organization as well as person-
ality and education. Job role ambiguity and related tension among
decision scientists is related to: decreased job interest, decreased
job innovation, increased physical stress, increased propensity to

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exit the organization, decreased job satisfaction, increased efforts to seek autonomy from the organization and thus decreased job satisfaction. (25)

With the inherent pressures of the program manager's position, one would hope job satisfaction could at least remain on an even keel to help avoid daily slumps. Fortitude and vitality would appear to go a long way in combating "the demands of the task".

The most concise referral to the "demands of the task" can be selected from the following .

> The program manager's main job is to make the program look good. I don't mean to fake it. I mean to be on top of the program, to anticipate what the boss expects, what the budget people expect, what OSD expects, and even what Congress expects. The image of an energetic, capable program manager is a great asset in recruiting the people you want in the program office, and in obtaining the right kind of support from functional organizations. The morale and success of the program office staff are largely a reflection of that image. (23)

CLIMATE OF THE ORGANIZATION

The climate of the organization represents the product of all the subheadings previously discussed, since each area contributes to the preservation of a mutually productive, goal oriented climate.

Climate of the organization is difficult to define as certainly it will vary depending on the degree of leadership displayed as well as forces external and internal to the project. The Boston College study listed the following factors as meriting concern and consideration and they illustrate what that report refers to as the "multi-dimensional capacity of the project management world". Some of their underlying

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dimensions were:

>Legal political environment
>Project Manager's authority and influence
>Size of project
>Initial over-optimism and conceptual difficulty
>Bureaucracy
>Size of project team
>Project Manager's spatial distance
>Project team decision participation
>Competitive and budgetary pressure
>Ease of coordination
>Project uniqueness, importance and public exposure
>Cost and schedule overrun (4)

It is essential that assessment and re-assessment of the climate be performed periodically to provide inventories of personnel needs. "Assessing a company's climate or environment is important because the person you put into a job has to be the kind of individual for whom the environment would be congenial." (19)

RANK AND STATUS

Status refers to the ranking or stratification of people in a social system. It involves degrees of prestige and (unfortunately) implications of good-bad or superiority-inferiority. (17)

This topic earns mention because of the structural format employed by the military for selection of program managers. Project Ace advised that there was a need to enhance the experience of acquisition managers provided they are identified at the senior captain through major point in their careers. (3)

Major Alfred Crumpton, a former DSMS student, produced a job analysis model of the Army Program Manager and offered the following corollary concerning rank and position.

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> The P.M. is chartered by the Secretary of the Army
> (here referring to Army program managers) who is
> assigned the responsibility and delegated the full-line
> authority for the centralized management of a specified
> development/acquisition project. The P.M. and his staff
> should have sufficient grade and organizational stature
> to accomplish the assigned tasks. (26)

Crumpton's appeal for sufficient grade indicates a former problem
with according prestige to the program manager which is cited in a
1973 study of the military industrial complex.

> All major weapons programs, in fact almost all programs
> are headed by a "program manager" who is usually a middle
> ranking officer, supposed to have the authority to run
> the program, to make the countless daily decisions that
> any complex project entails.
> Officers who rank above him in the chain of command
> interrupt these daily decisions in either of two ways
> (1) they demand to be kept constantly informed of the
> progress of the program (2) or require they be consulted
> on daily decisions.. Results of first way is converting
> program manager into errand boy - the ever ready "oral
> briefer." Result of the second way is to convert the
> program manager into a base toucher, the man who must
> check out every proposed decision with innumerable people
> before he finally makes it. (7)

Rosen's criticisms are too sharp when compared with current eval-
uations of the role and status of the program manager. Arguing that
in many other career fields an individual does not get to perform
according to his maximum range of capabilities or to use the full
quotient of his horsepower, J. Stanley Baumgartner praises project
management for its high levels of visibility. (8)

While appreciating the scope of Baumgartner's theory, one would
hope that too strong an urge for exposure and visibility doesn't
dominate the caliber of the individuals seeking to be program managers.
Too much exposure can be indecent !!!

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FUTURE PROMISES

Finally, I include the area of future promises as one which contributes to the success or demise of the program manager. How many military and government-employed civilians enter this career specialty area for the rewards of civilian industry?

The only legal limits to the kind of work that can be done by former military personnel when they retire is that Federal law prohibits retired officers from " selling" to the DOD for three years after retirement and their own branch of service for life. (27)

Author Michael Edwards, writing for Nation, spoke of the golden threads that hold the military-industrial complex together as the over 5,000 high ranking Defense Department officials who have left government employment for defense industries. (27)

A move to control the employment of retired officers by defense industries was made with the mandatory monitoring of a three year time frame wherein these individuals names are sent to the Pentagon. Results have domonstrated that the cost of maintaining this reporting system have been extensive. GAO estimated that the Defense Department spent $25,000 just to assemble a list. (27)

Another concept relative to "future promises" is the timed environment of a project. Realizing performance potential and job security within the tenure of the project schedule, the team members may begin to look around for their next source of advancement. This can be troublesome for the manager and should be warded off. (24)

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CONCLUSION

Too much of what is written in the process of analyzing the abilities of a program manager portrays a kind of SCARE TACTICS. Major George N. Giacoppe's list of abilities that deserve prominent consideration in the selection process for P.M. sounds impressive but in reality, when analyzed for true definition tends to stray from the realistic. Giacoppe lists the following rank order of performance which I take issue with in its conciseness.

> Ability to identify problems
> Overall high communication skills ability
> Ability to think in the broadest range possible
> Technical ability to analyze complex problems
> High ability in interpersonal relations
> Ability to think imaginatively
> Ability to brief frequently and well
> High persuasion abilities
> Ability to write well and present complex issues
> Ability to interface with high ranking officers/officials
> Ability to apply regulations and standing procedures (9)

If an individual were truly capable of demonstrating each of the above "abilities" he would be a dynamo of sorts. My argument centers on the fact that each of the characteristics is not an essential element to the final product. Declarations such as the above were amassed following a questionnaire sent to program managers and deputies. Remember that people <u>already</u> in the position were evaluating qualities they determined to be essential. Is not that human nature to look back on history and proclaim how one might have improved it? Is it not also a group of program managers registering exasperation against the lack of expertise encountered on their own staffs ?

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Project management is itself a complex system, and only when so considered can optimal managerial techniques be developed and utilized effectively. (4)

The subheadings of this paper represented specific factors which research led me to brand as those contributing the most impact upon resolution of the effective project manager.

Numerous articles and books were cumbersome with repetitious lists and "how to" advice exercises for the future program manager which I by-passed in favor of those providing divergent concepts. This procedure, coupled with the daily exposure to DSMS students and faculty, set the tone for the nine proposed areas.

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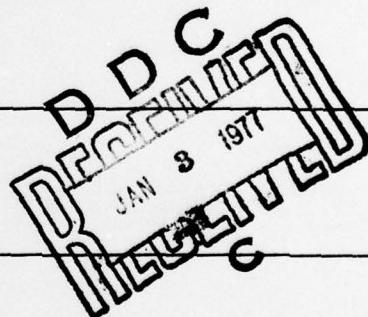
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